

ARTICLE IX. STORMWATER MANAGEMENT

Sec. 25-1000.-Purpose and policy.

- (a) This ordinance establishes standards and requirements for stormwater conveyance, treatment and discharge within the City of Fairmont; erosion and sediment control measures to be taken during the development of and alterations to lands within the City of Fairmont; and regulation of non-stormwater discharges to the City of Fairmont municipal separate storm sewer system (MS4). The purpose of this ordinance is to protect public health, safety and general welfare, property and the environment, and administer and implement stormwater best management practices (BMPs) as required by federal (United States Environmental Protection Agency) and state (Minnesota Pollution Control Agency) law.
- (b) The Objectives of this ordinance are:
- 1 To promote the awareness and importance of water quality within the city, specifically protecting and enhancing the quality of the Fairmont chain of lakes.
 - 2 To maintain compliance with the City of Fairmont's Stormwater Pollution Prevention Program (SWPPP).
 - 3 To regulate the contribution of pollutants and prohibit illicit connections and discharges to the City of Fairmont's MS4.
 - 4 To regulate land disturbing activity, installation, operations, maintenance and replacement of the stormwater system, and protect and prevent the discharge of sediment into public and/or private lands, public infrastructure, wetlands and waters of the State.
 - 5 To establish legal authority to carry out all inspections, monitoring and enforcement procedures necessary to comply with this ordinance.
- (c) This ordinance shall apply to all water entering the stormwater system generated on any developed and undeveloped lands unless exempted by the City of Fairmont.

Section 25-1001.- Definitions.

Unless the context specifically indicates otherwise, the following terms as used in this ordinance, shall have the meanings designated.

Applicant. Any person or group that applies for a permit to allow land disturbing activities. Applicant also means that person's agents, employees, and others acting under this person's or group's direction. The term "applicant" also refers to the permit holder or holders and the permit holder's agents, employees, and others acting under this person's or group's direction.

Best Management Practices (BMPs). Erosion and sediment control and water quality management practices that are the most effective and practicable means of controlling, preventing and minimizing degradation of waters of the state, including avoidance of impacts, prohibitions of practices, general housekeeping practices, pollution prevention and educational practices, operating and maintenance procedures, and other applicable management practices.

Builder, Commercial. Any building contractor engaging in work other than work performed under a license from the State of Minnesota as a residential building contractor, remodeler or specialty contractor in the business of contracting or offering to contract to improve residential real estate, all terms as defined by Minnesota Statute.

Builder, Residential. Any building contractor engaging in work performed under a license from the State of Minnesota as a residential building contractor, remodeler or specialty contractor in the business of contracting or offering to contract to improve residential real estate, as defined by Minnesota Statute.

Building Construction. The construction of any principle building or accessory structure or modification of a parcel of land or platted lot.

City. The City of Fairmont, the Fairmont City Council.

Common Plan of Development. A contiguous area where multiple separate and distinct land disturbing activities may be taking place at different times, on different schedules, but under one proposed plan. One plan is broadly defined to include design, permit application, advertisement or physical demarcation indicating that land disturbing activities may occur.

Developer. Any person, firm, corporation, sole proprietorship, partnership, state agency, or political subdivision engaged in a land disturbance activity.

Director. The City of Fairmont Director of Public Works/City Engineer or authorized designee.

Easement. A grant by a property owner for the use of a strip of land for public purposes of constructing and maintaining utilities and transportation ways including, but not limited to, utility lines, telephone lines, storm sewer or storm drainage ways and gas lines.

Final Stabilization. All soil disturbing activities at the site have been completed and all soils must be stabilized by a uniform perennial vegetative cover with a density of seventy (70) percent of the expected final growth density over the entire pervious surface area, or other equivalent means necessary to prevent soil failure under erosive conditions and:

- (a) All drainage ditches, constructed to drain water from the site after construction is complete, must be stabilized to exclude erosion;
- (b) All temporary synthetic and structural erosion prevention and sediment control BMPs (such as silt fence) must be removed. BMPs designed to decompose on site (such as some compost logs) may be left in place;
- (c) The Permittee must clean out all sediment from conveyances and from temporary sedimentation basins that are to be used as permanent water quality management basins. Sediment must be stabilized to prevent it from being washed back into the basin and/or into conveyances or drainage ways discharging off-site or to surface waters. The cleanout of permanent basins must be sufficient to return the basin to design capacity; and
- (d) The permanent stormwater management system is constructed, meets all of the required design parameters, and is functioning as designed.

Green Infrastructure. A wide array of practices at multiple scales that manage wet weather and that maintains or restores natural hydrology by infiltrating, evapotranspiration, or harvesting and using stormwater. On a regional scale, green infrastructure is the preservation or restoration of natural landscape features, such as forests, flood plains and wetlands, coupled with policies such as infill and redevelopment that reduce the overall imperviousness in a watershed. On a local scale, green infrastructure consists of the site and neighborhood-specific practices such as bioretention, trees, green roofs, permeable pavements and cisterns.

Hazardous Materials. Any material, substance, waste or combination thereof, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to, a substantial present or potential hazard to human health, safety, property, or the environment when improperly treated, stored, transported, disposed, or otherwise managed.

Illicit Connections. Any drain or conveyance, whether on the surface or subsurface that allows an illicit discharge to enter the stormwater system including, but not limited to, any conveyances that allow non-stormwater discharge including sewage, process wastewater and wash water to enter the stormwater system and any connections to the stormwater system from indoor drains and sinks, regardless of whether they had been previously allowed, permitted or approved by the County or City; or any drain or conveyance connected from a commercial or industrial land use to the stormwater system that has not been documented in plans, maps or equivalent records and approved by the City.

Illicit Discharge. Any direct, indirect or accidental non-stormwater discharge to the stormwater system, except as exempted in this ordinance.

Impaired Water. Waters identified as impaired by the Minnesota Pollution Control Agency, and approved by the USEPA, pursuant to section 303(d) of the Clean Water Act (33 U.S.C. § 303(d)).

Impervious Surface. A constructed hard surface that either prevents or retards the entry of water into the soil and causes water to run off the surface in greater quantities and at an increased rate of flow than prior to the development. Examples include rooftops, sidewalks, patios, driveways, parking lots, storage areas, compacted gravel, concrete, asphalt, or gravel roads.

Industrial Activity. Activities subject to NPDES Industrial Stormwater Permits as defined in 40 CFR, Section 122.26 (b)(14).

Land Development (Develop). The process whereby improvement to a single lot or to an entire site, occurs in one continuous process or in more than one distinct phase, including but not limited to the following activities: site grading; installation of utilities; construction of public streets; construction or grading of drainage ways; other grading or filling of any area within the site; grading of building pad areas; utility hookups; construction of buildings; parking lots; driveways; storage areas; private streets; and any other construction or land disturbing activity within the subject property site.

Land Disturbing Activity. Any activity that results in a change or alteration in the existing ground cover (both vegetative and non-vegetative) and/or the existing soil topographs. Land disturbing activities include, but are not limited to, development, redevelopment, demolition, excavating, grading, clearing, filling, stockpiling, hauling, construction, reconstruction and borrow pits. Routine vegetation management, and mill and overlay/resurfacing activities that do not alter the soil material

beneath the pavement base, are not considered land disturbance.

Land Disturbance Permit (LDP). A permit issued by the City for the control of pollutants, erosion, sediment and design of post construction stormwater management facilities during land disturbing activities.

Municipal Separate Storm Sewer System (MS4). The system of conveyances (including sidewalks, roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, constructed channels or storm drains) owned or operated by a state, city, town, borough, county, parish, district, association, or other public body and designed or used for collecting or conveying stormwater, and not used for collecting or conveying wastewater, that discharges to waters of the United States.

National Pollutant Discharge Elimination System (NPDES) Stormwater Discharge Permit. A permit issued by the USEPA (or by a State under authority delegated by the USEPA) that authorizes discharge to waters of the United States.

New Development. All construction activity that is not defined as redevelopment.

Non-Stormwater Discharge. Any discharge to the stormwater system that is not composed entirely of stormwater.

Notice of Termination (NOT). A notice given to the City declaring that the site will no longer be discharging stormwater associated with construction activity and all final stabilization of the site has been completed as outlined in the permittee's SWPPP.

Owner(s). A natural person, partnership, firm, association, public or quasi-public corporation, private corporation, or a combination of, with a legal or equitable interest in the parcel of record.

Parcel of Record. A tract, plot, lot, and/or portion of subdivision or other parcel of land, intended as a unit for the purpose, whether immediate or future, of transfer of ownership, possession or for building development.

Permittee. A Land Disturbance Permit holder.

Pollutant. Anything which causes or contributes to pollution, including but not limited to paints, varnishes and solvents; oil and other automotive fluids; non-hazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter or other discarded or abandoned objects, that may cause or contribute to pollution; floatables; pesticides, herbicides, and fertilizers; hazardous substances and wastes; wastewater, coliform bacteria and pathogens; dissolved and particulate metals; animal wastes; wastes and residues that result from constructing a building or structure; and noxious or offensive matter of any kind.

Pre-Project. The existing condition of the site before project begins.

Preliminary Plat. A drawing of the entire subdivision meeting all requirements of the City's Land Development Code.

Premises. Any building, lot, parcel or portion of land whether undeveloped or developed, adjacent sidewalks and parking strips.

Public Waters. Waterbasins and watercourses that meet the criteria set forth in Minnesota

Statutes, Section 103G.005 subd.15.

Receiving Water. Any lake, river, stream or wetland that receives stormwater discharges from an MS4.

Redevelopment. Any construction activity where, prior to the start of construction, the areas to be disturbed have 15 percent or more of impervious surface(s).

Reduce. Means reduce to the Maximum Extent Practicable (MEP) unless otherwise defined in the context in which it is used.

Saturated Soil. The highest seasonal elevation in the soil that is in a reduced chemical state because of soil voids being filled with water, saturated soil is evidenced by the presence of the redoximorphic features or other information.

Sediment. Soil particle exposed to movement.

Stormwater. Rainwater runoff, snowmelt and subsurface runoff and drainage.

Stormwater Management Plan. A document that describes the Best Management Practices (BMPs) and activities to be implemented to identify sources of pollution or contamination at a site and the actions to eliminate or reduce pollutant discharges to stormwater, stormwater conveyance systems, and/or receiving waters to the maximum extent practicable.

Stormwater Pollution Prevention Plan (SWPPP). A plan developed to identify the sources of pollution that affect the quality of stormwater discharges from a site and to describe and ensure the implementation of practices to prevent or reduce pollutants in stormwater discharge.

Stormwater Structures. Any structure used to capture, convey and/or treat stormwater runoff including but not limited to catch basins, manholes, sumps, storm drain, outfalls, inlets, outlets, ponds and infiltration/filtration treatment areas.

Structural Stormwater BMPs. Stationary and permanent BMPs designed, constructed and operated to prevent or reduce the discharge of pollutants in stormwater.

Water Quality Standards. Provisions contained in Minn. R. 7050 and 7052.

Waters of the State. All streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, reservoirs, aquifers, irrigation systems, drainage systems and all other bodies or accumulations of water, surface or underground, natural or artificial, private or public, which are contained within, flow through, or border upon the state or any portion thereof. (Minn. Stat. 115.01, § subd. 22.)

Wastewater. Liquid and water-carried industrial or domestic wastes from dwellings, commercial buildings, industrial facilities, and institutions which is discharged into or permitted to enter the City's wastewater treatment system.

Sec. 25-1002 - Illicit Discharge Detection and Elimination.

(a) *Prohibited Discharges.* No person shall throw, drain or otherwise discharge, cause, or

allow others under its control to throw, drain, or otherwise discharge into the City's MS4, any pollutants or waters containing any pollutants.

(b) *Stormwater Discharge Exemptions.* If not causing a public safety or nuisance, or water quality violation, the following shall not be considered prohibited discharges:

- 1) Discharges from landscape irrigation, diverted stream flows, rising groundwaters, uncontaminated groundwater infiltration, uncontaminated pumped groundwater, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space sump pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, water main flushing and street wash water. Discharges associated with dye testing; verbal approval prior to testing is required.
- 2) Discharges or flow from firefighting and other discharges specified by the City as necessary to protect public health and safety.
- 3) The prohibition shall not apply to any non-stormwater discharge permitted under an NPDES Permit, waiver or waste discharge order issued to the discharger and administered under the authority of the USEPA, provided that the discharger is in full compliance with all requirements of the permit, waiver or order and other applicable laws and regulations, and provided that written approval has been granted for any discharge to the stormwater system.

(a) *Illicit Connections.* The following are prohibited under this ordinance:

- 1) The construction, use, maintenance or continued existence of illicit connections to the stormwater system is prohibited.
- 2) This prohibition includes, without limitation, previous illicit connections regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.
- 3) It is a violation of this ordinance to connect a line conveying non-stormwater to the City's MS4 or allow these connections to continue.
- 4) Improper connections in violation of this ordinance must be disconnected and redirected, if necessary, to an approved onsite wastewater management system or upon approval, to the City's wastewater treatment system.
- 5) Any drain or conveyance that has not been documented in record drawings, maps or equivalent, and which may be connected to the storm sewer system, shall be located by the owner or occupant of that property within twenty-one (21) days upon receipt of written notice from the City requiring that the location be disclosed. Documentation shall be provided to the City including location of drain or conveyance, drain or conveyance identification as storm sewer, sanitary sewer or other, and the outfall location or point of entry into the City storm sewer, sanitary sewer or other point of discharge.

(b) *Illicit Discharges.* All users shall provide adequate protective procedures and BMP's to

prevent discharges of any non-stormwater discharge to the City's MS4.

- 1) Discharges of prohibited waste shall be reported to the Director by the persons responsible for the discharge, or by the owner or occupant of the premises where the discharge occurred, immediately upon obtaining knowledge of the discharge. Such notification will not relieve users of liability for expense, loss or damage to the stormwater system, or any fines imposed on the City under any State or Federal law. The responsible person shall take immediate action as is reasonably possible to minimize or abate the prohibited discharge. The responsible person shall send; detailed written notification describing the illicit discharge to the Director within seven (7) days of knowledge of the discharge. The letter shall include the following information:
 - a. The time and location of the discharge;
 - b. Description of the discharged waste, including estimate of pollutant concentrations;
 - c. Time period and volume of discharge;
 - d. Actions taken to correct or control the discharge; and
 - e. A schedule of corrective measures to prevent further discharges.
- 2) *Stormwater Inspections.* The City may conduct tests as necessary to enforce this ordinance, and authorized City employees may enter any property for the purpose of inspection, observation, measurement, sampling, obtaining information or conducting surveys or investigations to enforce this ordinance. Entry shall be made during operating hours unless circumstances require otherwise.
- 3) *Requirement of Best Management Practices.* Compliance with all terms and conditions of a valid NPDES Permit and/or Land Disturbance Permit shall be deemed compliance with the provisions of this section. The City will adopt requirements identifying BMPs for any activity, operation, or facility which may cause or contribute to pollution or contamination of stormwater, the stormwater system or waters of the United States. The owner or operator of such activity, operation or facility shall provide, at the owner's expense, reasonable protection from accidental discharges of prohibited materials or other wastes into the stormwater system or watercourses through the use of the BMPs. Any person responsible for a property or premise that is, or may be, the source of an illicit discharge, may be required to implement, at their expense, additional BMPs to prevent the further discharge of pollutants to the City's MS4.
- 4) *Industrial or Land Disturbing Activity Discharges.* Any person subject to an industrial or construction activity NPDES Stormwater Permit shall comply with all provisions of such permit. Written proof of compliance may be required prior to discharge to the City's MS4.

Sec. 25-1003 - Erosion and Sediment Control/Land Disturbance Permit

- (a) *Land Disturbing Activities.* All land use activities are subject to this ordinance.

- (b) *Land Disturbance Permit Requirements.* The following are required to obtain a Land Disturbance Permit (LDP):
- 1) All new single family home lots.
 - 2) Land disturbing activities that disturb land of greater than or equal to five thousand (5,000) square feet.
 - 3) Any disturbance located in Tier A of the City Shoreland District. (Shoreland Management ordinances apply).
- (c) *Residential, Commercial, Multifamily and Industrial Sites:* All persons planning a land disturbing activity, meeting the land disturbance requirements of this ordinance, on an existing parcel of record (building site) shall obtain a LDP, from the City prior to obtaining a Building Permit. A Building Permit will not be issued without an approved Building Site LDP.
- (d) *Subdivision Development:* A subdivision owner/developer/agent planning a land disturbing activity, including but not limited to mass grading, site development, roadway and utility installation on an existing parcel of record as shown on the preliminary plat, shall obtain a LDP from the City if meeting the land disturbance requirements of this ordinance. If work will be performed in project phases as specified in the City approved construction plans (each phase needs its own permit). A subdivision owner/developer/agent may have multiple phase permits open for the master plan site. The LDP will not be issued without approved final construction plans and specifications relevant to final plat phasing. Prior to site work or building construction, each parcel of record (building site) must have its own LDP obtained by the owner or applicant as described in the land disturbance permit requirements.
- (e) *Roadway and Utility Installation Construction Plans:* All persons wishing to start a land disturbance project on an existing lot of record for the purposes of the construction of any roadway or utilities, shall submit a Land Disturbance Permit application to the City at the time of the roadway and utility plan if the project meets the requirements of this ordinance. Each parcel of record within a subdivision must obtain a separate LDP.
- (f) *Other Permits:* The LDP does not replace, eliminate or satisfy the need for any other permits required by any other public or private entity.
- (g) *Land Disturbing Exemptions.* The following activities are exempt from Land Disturbance Requirements:
- 1) Any emergency activity that is immediately necessary for the protection of life, property or natural resources.
 - 2) Nursery, home gardening and agricultural operations that are confined to private property.
- (h) *Land Disturbance Permit Exemptions.* The following activities do not require a LDP but are subject to the conditions of this ordinance:
- 1) Maintenance work by City employees.

- 2) Federal, State, County, and other projects where the City does not have regulatory authority.
 - 3) Land disturbing activity disturbing land less than 5,000 square feet and not located in Tier A of Shoreland Management District.
- (i) *Land Disturbance Permit.* Prior to any land disturbing activities, the owner or applicant shall be required to obtain a Land Disturbance Permit (LDP).
- 1) The LDP application shall be submitted to the City.
 - 2) All single family residential land disturbance permits shall be processed within seven (7) calendar days from receipt of a completed application. All other permits shall be processed within thirty (30) calendar days from receipt of a completed application.
 - 3) The City of Fairmont shall do one of the following in writing:
 - a. Approve the permit application;
 - b. Approve the permit application subject to such reasonable conditions as may be necessary to secure substantially the objectives of this Ordinance, and issue the permit subject to these conditions; or
 - c. Disapprove the permit application, indicating the reason(s) and procedure for submitting a revised application and/or submission.
 - d. Failure of the City to act on an original or revised Land Disturbance Permit application within seven (7) calendar days for permits under 5,000 S.F. and thirty (30) calendar days for all other permits upon receipt shall authorize the applicant to proceed in accordance with the plans as filed unless such time is extended by agreement between the applicant and the City, or the City notifies the applicant of errors and/or omissions in the application requiring corrective action on the part of the applicant. Once the LDP is approved, permit coverage will be issued to the Permittee.
- (j) *Land Disturbance Permit Submittals.* The application for a LDP shall include the following:
- 1) One full set of site plans and a copy of the SWPPP, or portion of the SWPPP that applies to the site, prepared for the MPCA if not included in the full set of site plans.
 - a. The City reserves the right to approve the SWPPP subject to conditions deemed necessary to meet the purpose of this ordinance and the MPCA requirements. City approval of a SWPPP does not mean approval by the MPCA, and MPCA approval of a SWPPP does not mean City approval. At a minimum, all conditions of the MPCA NPDES Construction Permit MN R100001 must be met; in some cases the City may apply stricter standards or require temporary and permanent erosion and sediment control measures in addition to those required by other public or private entities.

2) If a SWPPP is not required by the MPCA, the following must accompany the LDP application:

a. Site Information.

1. Delineation of the subject property and the location of existing and proposed buildings, structures and impervious surfaces;
2. Description of the construction or land disturbing activity to be performed on the property and proposed project schedule;
3. Identification of all public waters located on and within 30 feet of the subject property's boundaries, and identify if a water body is intended to be used for water quality treatment. Identification by use of best available maps from the City, DNR or County will be sufficient;
4. Identification of all wetland or agricultural buffer zones;
5. Topographical data, if required, including existing (dashed) and proposed (solid) contours at vertical intervals of not more than two feet, except that contour lines shall be no more than 100 feet apart;
6. The location and size of all existing overhead and underground utility lines and services on or adjacent to the property.

b. Erosion and Sedimentation Control.

1. Delineation of all areas to be graded or excavated, and the limits of land disturbing activities;
2. Identification of measures to be utilized to control erosion and sedimentation within and from the subject property during the project activity as required herein;
3. Identification of all permanent erosion control measures and a completion schedule.
4. Identification of the location of dirt or soil storage or stock pile areas to be utilized;
5. Identification of all measures to be utilized to protect neighboring property, water bodies, and wetland buffer zones; and
6. Identification, use and maintenance plan of BMPs for temporary erosion and sedimentation control as recommended by the MPCA including but not limited to:
 - i. Perimeter erosion control devices, including but not limited to silt fence, sediment logs, mulch, etc.;
 - ii. Stockpile protection;

- iii. Phased grading;
 - iv. Temporary seeding, mulching, and disc anchoring (with seed and mulch type), erosion control blanketing, (Temporary cover is required for areas in which no land disturbance has occurred for 7 calendar days);
 - v. Storm drain inlet protection devices;
 - vi. Appropriately protected construction entrance;
 - vii. Removal of all debris, dirt and soil from impervious ground surfaces, including abutting public or private roadways and sidewalks, in connection with the subject property (street sweeping);
 - viii. Sediment basins and flow diversions; and
 - ix. Any other erosion and sedimentation control device as deemed necessary by the City.
- c. Final Stabilization BMPs.
- 1. Identification of BMPs used to meet final stabilization requirements including landscaping, seeding and stabilization BMPs.
- d. Dewatering BMPs.
- 1. Identify BMPs so that turbid or sediment-laden waters are treated with appropriate BMPs such that the discharge water does not cause a nuisance condition to receiving waters or adversely affect downstream properties; and
 - 2. Discharge points identified and adequately protected from erosion and scour.
- e. Management of Solid and Hazardous Wastes.
- 1. Identification of BMPs for the storage, handling, and disposal of construction products, materials, and wastes per MPCA requirements;
 - 2. Identification of BMPs for the fueling and maintenance of equipment and vehicles;
 - 3. Identification of BMPs for spill prevention and response; and
 - 4. Identification of BMPs for the management and containment of concrete and other washout wastes.
- f. Drainage and Grading.
- 1. Plan submittals shall be developed in accordance with the Permanent Stormwater Design Checklist shown in Appendix A. (0.5 acres and over sites only)

or if requested by SWPPP reviewer for sites under 0.5 acres)

2. Identification of proposed contour grading at vertical intervals of not more than two feet (0.5 acres and over sites only or if requested by SWPPP reviewer for sites under 0.5 acres);
 3. The estimated time required to complete the work, the amount of material to be moved and/or removed from the site;
 4. A map showing the stages or limits of grading together with the existing or proposed finished elevations based on sea level readings;
 5. Identification of proposed building bench elevations and direction of flow of surface water within each lot;
 6. Methods of controlling dust;
 7. Submission of preliminary plans or program for water supply, sewage disposal, drainage and flood control (0.5 acres and over sites only or if requested by SWPPP reviewer for sites under 0.5 acres);
 8. Soil borings, if required by the City Engineer; and
 9. Drainage, grading, and land use shall be designed such that water runoff cannot cause flooding (drainage in excess of the natural drainage anticipated by the city stormwater management plan) or erosion on adjacent property. Runoff shall be properly drained via overland drainage ways or channeled into the stormwater system, watercourse, ponding area or other suitable facility approved by the City.
- 3) For all projects that include structural stormwater BMP's the Permittee shall include the name of the responsible party for post construction maintenance along with a detailed maintenance plan. A permanent public easement and recorded Maintenance Agreement is required for all structural BMP's as part of the LDP permit process per Sec. 25-1004 (f)(6).
- 4) Hydrologic calculations for volume runoff, velocities, and peak flow rates by watershed as defined by Sec. 25-1004(f)(1)
- (k) *Land Disturbance Activity Standards.* All land disturbing activities must comply with the approved SWPPP and/or appropriate BMPs as referenced in the Erosion and Sediment Control Section of this Ordinance until the land disturbance permit is terminated or the project reaches final stabilization. Each non-compliant BMP (e.g. perimeter controls, inlet protections, concrete washout) shall be considered a separate violation of this Ordinance.
- (l) *Duration of Coverage by Land Disturbance Permit.* A LDP shall remain effective until one of the following occurs:
- 1) Final Stabilization. Final Stabilization is achieved, a Notice of Termination (NOT) has been filed with the City, all termination of coverage requirements are met and the

City has issued the NOT; or

- 2) Time Requirement Reached. The LDP becomes void if work does not begin within 180 days of permit approval or is suspended at any time for over 180 days. Extensions may be granted upon requests received at least 15 days prior to permit becoming void. If a permit becomes void, the permit application process will begin anew; or
 - 3) Change of Coverage. For stormwater discharges from construction projects where the Owner changes prior to issuing NOT (e.g. a homebuilder sells a house and lot to the final homebuyer or the entire site changes ownership):
 - a. The original/current applicant shall provide a copy of the notice of termination/permit modification form and fact sheet to the new applicant.
 - b. The original/current applicant shall provide the SWPPP, or equivalent plan, to the new applicant that specifically addresses the remaining construction activity. If the SWPPP or equivalent plan is not relevant, or the new applicant wants to use a new plan, this must be submitted with the notice of termination/permit modification form.
 - c. The new and current applicants shall work together to submit one completed and signed permit modification form to the City within seven (7) calendar days of assuming operational control of the site, commencing work on their portion of the site, or of the legal transfer, sale, or closing on the property. No new fees will be required.
 - d. The change of coverage becomes effective five (5) calendar days from receipt of the completed form unless the Permittee is contacted by the City during the five (5) day period and notified of an incomplete form. The permit modification portion of the NOT/permit modification form acts as the permit application for the new applicant and a NOT for the current applicant only for the portion of the site which was sold.
 - e. Late submittals of either LDP transfers will not be rejected, however, the City reserves the right to pursue enforcement actions for any unpermitted discharges or permit noncompliance for the new registered party that has assumed control of the site.
 - f. For stormwater discharges from construction activities where the applicant changes, the new applicant can implement the original SWPPP created for the project or develop and implement a new SWPPP.
 - g. The new Permittee shall ensure either directly or through coordination with the old Permittee that their SWPPP meets all terms and conditions of this ordinance and that their activities do not render ineffective another party's erosion prevention and sediment control BMP's.
- (m) *Termination of LDP Coverage.* A Permittee wishing to terminate the LDP must complete Final Stabilization of the Parcel of Record and submit a Notice of Termination (NOT) request. Requests for NOT are done by completing the NOT/permit modification form

supplied with the permit; or using other proper NOT communication (phone call, e-mail) and submitting it to the Director or designee as provided with the notice of coverage.

Compliance with the LDP is required until a NOT is submitted and approved by the City. The NOT becomes effective fifteen (15) calendar days after the postmarked date of the completed NOT form or other proper notification, unless the Permittee is contacted by the City during the fifteen (15) day period and notified of an incomplete NOT. As-built drawings for all stormwater structures must be provided to the City of Fairmont before a NOT can be processed by the city. All other Land Disturbance Permits must show that all stormwater structures are in compliance with the grading plan. A notice of permit termination will be issued once the termination is approved.

(n) *Land Disturbance Inspections.* The City shall have the right to enter and inspect a property to determine compliance with this ordinance.

1) *Self Inspections.* The Permittee or their designee must make regular inspections of all the BMPs and the entire site at least once every seven (7) days during active construction and within twenty-four (24) hours after a rainfall event greater than 0.5 inches in 24 hours. Records of these inspections shall be made available to the City upon request.

2) *City Inspections.* The Director and/or their designee shall make inspections and either approve that portion of completed work or notify the Permittee where work is non-compliant. The LDP fee shall cover the cost of routine inspections. Additional inspections due to noncompliance may be billed to the affected property owner at 2.5 times the base hourly salary of the Inspector.

(o) *Post Construction Maintenance.* Property owner shall maintain all stormwater facilities in proper condition consistent with the performance standards for which they were originally designed.

Sec. 25-1004.-Stormwater Management Performance Standards and Design Criteria.

(a) The performance standards and design criteria in this section shall only apply to sites in which land disturbance is equal to or greater than 0.5 acres.

(b) *Reducing Need for Stormwater Management.* The applicant shall consider reducing the need for stormwater management structural controls by incorporating the use of natural topography and land cover such as natural swales and depressions as they exist before development to the degree that they can accommodate the additional flow of water without compromising the integrity or quality of the receiving water body. The development shall minimize impact to significant natural features.

(c) *Shoreland Development.* Stormwater management of shoreland development shall comply with the standards set forth in Fairmont City Code. In designated shoreland areas the development shall meet the impervious surface requirements of the shoreland ordinance regardless of conveyance systems.

(d) *Use of Existing Facilities.* If stormwater is conveyed to an existing approved, on-site or regional stormwater ponding/retention facility, documentation must be provided to show

that the existing facility was designed to accommodate the changes in stormwater rate and volume due to the project and that use of the facility for the project will not impinge on the ultimate capacity of the facility or otherwise adversely affect the ability of the facility to achieve its original planned purpose. City may charge a fee for use of any existing facility that is commensurate with the replacement cost for any reduction in ultimate stormwater volume, rate capacity and sediment storage.

(e) *Requirements.* Proposed design, suggested location and phased implementation of effective, practicable stormwater management measures shall be designed, engineered and implemented to achieve the following results:

(f) Post Construction Stormwater Standards.

1) *Rate Control Standards.* The following rate control standards shall be met as described below for all development and redevelopment projects where land disturbing activity occurs on (0.5) acres or more.

- a. Discharge rates shall be derived using the standards methods of the Natural Resources Conservation Service TR-55 or TR-20 as defined in the current Hydrology Guide for Minnesota.
- b. For agricultural land subject to this section, the maximum runoff curve number (RCN) used in such calculations for pre-existing undeveloped conditions shall be based on average cultivated row crop conditions and shall not exceed 67 for Hydrologic Soil Group (HSG) A, 76 for hydrologic soil group B, 83 for HSG C, and 86 for HSG D. The TR-55-specified curve numbers for other land uses shall be used. Post development HSG for disturbed sites will be lowered one class for hydrologic calculations to reflect reduced soil permeability impacts unless city approved practices have been implemented to restore soil structure to pre-developed conditions, in which case no HSG class modification is required.
- c. Maintain pre-project peak runoff rates for the 2-year, 24-hour storm event.
- d. Maintain pre-project peak runoff rates for the 10-year, 24-hour storm event. At a minimum the storm sewer conveyance system shall be designed for this storm event. Low areas must have an acceptable overland drainage route with the proper transfer capacity when the storm event is exceeded.
- e. Maintain pre-project peak runoff rates for the 100-year, 24-hour storm event. Provide stabilized outlet to safely pass this event.
- f. Outlets. Discharges from new construction sites must have a stable outlet capable of carrying designed flow at a nonerosive velocity. Outlet design must consider flow capacity and flow duration. This requirement applies to both the site outlet and the ultimate outlet to stormwater conveyance or water body.

2) *Volume and Pollution Control Standards.* The following volume and pollution control standards shall be met as described below for all development and redevelopment projects where land disturbing activities occur on 1 acre or more. Development or redevelopment projects less than one acre that are part of a larger common plan of

development are also subject to the volume and pollution control standards of this ordinance.

- a. All new development projects shall retain, on-site (i.e. infiltration or other volume reduction practices) and not discharge off-site, a runoff volume equal to 1 inch from the proposed increase of impervious surfaces. New development projects shall also have no net increase (on an annual average basis) of Total Suspended Solids (TSS) and Total Phosphorus (TP) stormwater discharges.
- b. All redevelopment projects shall retain, on-site (i.e. infiltration or other volume reduction practices) and not discharge off-site, a runoff volume equal to ¼ inch from all redeveloped impervious surfaces. Newly added impervious surfaces must meet the new development standard of 1 inch. Redevelopment projects shall also have a net reduction (on an annual average bass) of Total Suspended Solids (TSS) and Total Phosphorus (TP) stormwater discharges.

TABLE 25-1: VOLUME CONTROL REQUIREMENT	
Type	Impervious Surfaces
New Development	1" from the proposed increase
Redevelopment	1/4" for all redeveloped 1" for all expansion

- c. To the maximum extent practicable, volume and pollution control measures should be distributed evenly throughout the development areas.
- d. Green infrastructure techniques and practices (including, but not limited to, infiltration, evapotranspiration, reuse/harvesting, conservation design, urban forestry, green roofs), shall be given preference as design options consistent with zoning, subdivision and PUD requirements.
- e. Best management practices must meet design specifications as outlined and incorporated in Appendix A of this Code – *Permanent Stormwater Design Checklist*.
- f. For linear projects, a reasonable attempt must be made to obtain right-of- way during the project planning process for volume and pollution control practices. For linear projects where the lack of right-of-way precludes the installation of volume control practices, exceptions, as described in this Sec 25-1004 (e)(5). *Post Construction Stormwater Standards, Exceptions and Mitigation*, can be applied.
- g. Wetlands/ponds are considered to be an impervious surface. While subject to rate control requirements, rainfall on wetlands/ponds is not subject to volume control standards.
- h. As sites redevelop, the proposed site modifications must meet or exceed the stormwater volume standards that were previously achieved.

- 3) *Review and Approval.* All stormwater design calculations, specifications, site plans and supporting hydraulic modeling are subject to the review and approval of the City Engineer or its designee.
- 4) *Soil Boring and Approval.* A minimum of one soil boring shall be done where a proposed infiltration or filtration site is located on the project site to insure it meets the requirements for infiltration rate and it does not contain any contaminated soil.
- 5) *Stormwater Facility Maintenance.* Property owner shall maintain all stormwater facilities in proper condition consistent with the performance standards for which they were originally designed.
- 6) Post Construction Stormwater Standards, Exceptions and Mitigation
 - a. Projects shall fully attempt to comply with the volume control requirements in Sec. 25-1004(f) *Post Construction Stormwater Standards*. A reduced volume control on the site of the original construction activity may be applied, at the discretion of the City, under the following circumstances:
 1. The owner and/or operator of the construction activity is precluded from infiltrating stormwater through a designed system due to limitations as specified and incorporated in Appendix A of this Code – *Permanent Stormwater Design Checklist*; and,
 2. The owner and/or operator of the construction activity implements to the maximum extent practicable volume reduction techniques, other than infiltration, on the site of the original construction activity that reduces stormwater discharge volumes.
 - b. If the owner and/or operator of a construction activity is granted a volume control exception, alternatives 1, 2, and 3 are required to be followed as specified and incorporated in Appendix B of this Code – *Alternative Stormwater Treatment Options*. This process includes mitigation provisions for requirements that cannot be met on the site of the original construction activity.
 - c. The owner and/or operator of a construction activity must provide appropriate documentation to the City as support for volume control exceptions and/or mitigation provisions as specified and incorporated in Appendix B of this Code – *Alternative Stormwater Treatment Options*.
- 7) Post Construction Maintenance and Inspections of Structural Stormwater BMPs.

Any structural stormwater BMPs that the City determines to be private shall meet the following requirements:

- a. A permanent public easement shall be provided to the City for access for inspection and/or maintenance purposes. Costs incurred by the City for any maintenance of private systems will be billed and/or assessed to the owner per Sec. 25-1005. *Violations and Enforcement*.
- b. The owner shall enter into a recorded Maintenance Agreement with the City.

The agreement shall include as an attachment an inspection and maintenance plan. The terms and conditions of the Maintenance Agreement with attachments shall be binding upon, and shall inure to the benefit of the parties and their respective successors and assigns.

- c. The permanent public easement and Maintenance Agreement shall be recorded with the County Recorder or Registrar of Titles in the respective County where the Structural Stormwater BMP is located. A copy of the recorded permanent public easement and Maintenance Agreement shall be provided to the City prior to the certificate of occupancy or one (1) year after the site's land disturbance permit is approved, whichever comes later.
- d. The inspection and maintenance plan shall be developed, approved, and included as an attachment with the Maintenance Agreement. At a minimum, maintenance plans must include the following information:
 - 1. Responsible person(s) for completing inspections and conducting maintenance;
 - 2. Frequency of inspections of maintenance; and
 - 3. Inspection checklist and type of maintenance anticipated.
- e. If site configurations or structural stormwater BMPs change, decreasing BMP effectiveness, new or improved structural stormwater BMPs must be designed and implemented to meet the requirements of this section. New and/or improved BMP plans must be submitted to the City Engineer for review and approval.
- f. The property owner shall maintain all structural stormwater BMPs in proper condition consistent with the performance standards for which they were originally designed.
- g. The property owner shall keep on file all structural stormwater BMP annual inspection and maintenance records for 5 years and submit to the City as requested.

8) Public Structural Stormwater BMPs and Drainage Easements.

- a. Alterations affecting the function of a public structural BMP, and/or drainage easement, must be approved by the City Engineer.

Sec. 25-1005.-Violations and Enforcement.

- (a) *Violation Enforcement.* It shall be unlawful for any person to violate any provision or fail to comply with any of the requirements of this ordinance. Any person who has violated or continues to violate the provisions of this ordinance, may be subject to the enforcement actions outlined in this ordinance or may be restrained by injunction or otherwise abated in a manner provided by law. It is the duty of the Director or designee to enforce the provisions of this ordinance, including the power to inspect private premises and issue orders for abatement.

- (b) *Right of Entry.* In the event the violation constitutes an immediate danger to public health or public safety, the City is authorized to enter the property, without prior notice, to take any and all measures necessary to abate the violation and/or restore the property, at the owner's expense. The City will pursue measures to recover all costs associated with the restoration.
- (c) *Stormwater System Service Suspension.* The Director or designee may suspend MS4 service when necessary to stop an actual or threatened discharge which presents or may present an imminent or substantial danger to public health or safety, the environment, or the stormwater system, or would cause the City to violate any condition of its NPDES Stormwater Permit. Any user notified of a suspension of the stormwater system service shall immediately stop the discharge. In the event the user fails to comply voluntarily with the suspension order, the Director or designee shall take steps as deemed necessary, including immediate severance of the stormwater connection, to prevent or minimize damage to the system, public health or public safety. The Director or designee shall reinstate the stormwater system service upon proof of elimination of the non-complying discharge.
- (d) *Stop Work Order.* The City may issue a Stop Work Order in the event of: immediate danger to public health and safety, or the environment; noncompliance with this Ordinance or a Land Disturbance Permit; failure to obtain a Land Disturbance Permit; Land Disturbance Permit was issued based on incorrect information.
- 1) Only work to remedy the Stop Work Order will be allowed. The Stop Work Order will state what remedial work is necessary and state the time limits for completing the remedial work.
 - 2) If necessary remedial work is not begun or completed by the violator as specified in the stop work order, the abatement of the violation will be under the direction of the Director, or designee. The expenses for the abatement will include a \$75.00 administrative fee in addition to the actual costs of the abatement. Abatement actions that require the presence of City staff for more than one hour during the abatement or other extraordinary coordination efforts will be billed to the property owner at the rate of \$150.00 per hour. If abatement expenses are not paid, they will be levied against the property as a special assessment and collected as in the case of other special assessments
 - a. A \$50.00 charge will be added to all accounts certified to the County Auditor's office for collection. This fee is to be considered separate and distinct from any penalty or interest that may be charged by the County as a result of the certification.
 - 3) Upon successful remediation of the land disturbing activity, the Stop Work Order will be lifted.
- (e) *Land Disturbance Permit Revocation.* If the violator refuses or fails to cease work after the Stop Work Order, the City shall revoke the LDP.
- (f) *Notice of Violation.* Whenever the Director or designee finds that any person has violated or is violating this ordinance where an immediate public health threat does not exist, the Director or designee shall issue a notice of violation and order to correct by personal service, regular mail or electronic mail. The notice of violation and order to correct will be served upon the property owners, responsible parties, violators, Permittees, and/or other responsible persons. The notice will require corrective measures to be taken within a specified time period.

(g) *Abatement of Violation.* If, after service of notice, the person served fails to abate the violation or make the necessary repairs, alterations or changes as required by the order of the City of Fairmont, the same may be abated under the direction of the Director or designee. The expenses for the abatement will include a \$75.00 administrative fee in addition to the actual costs of the abatement. Abatement actions that require the presence of City staff for more than one hour during the abatement or other extraordinary coordination efforts will be billed to the property owner at the rate of \$150.00 per hour. If abatement expenses are not paid, they will be levied against the property as a special assessment and collected as in the case of other special assessments

- 1) A \$50.00 charge will be added to all accounts certified to the County Auditor's office for collection. This fee is to be considered separate and distinct from any penalty or interest that may be charged by the County as a result of the certification.

Sec. 25-1006.-Penalties.

- (a) *Administrative Citations.* Notwithstanding any other section of this ordinance, any person who is found to have violated any provision of this ordinance, or permits and orders issued hereunder, may be fined in an amount not to exceed \$2,000 per violation. Each calendar day on which noncompliance shall occur or continue shall be deemed a separate and distinct violation. Unpaid charges, fines and penalties shall constitute a lien against the individual user's property. The process for citations shall follow the City's Administrative Citation Process.
- (b) *Criminal Penalties.* Any person violating any of the provisions of this ordinance may be guilty of a misdemeanor punishable by a fine of not more than \$1,000.00, or by imprisonment not to exceed 90 days, or both.
- (c) *Permit Fee Doubled.* No construction, installation, alteration or repair, for which a land disturbance permit is required, will commence without first obtaining the land disturbance permit. A violation of this permit requirement will result in the permit fee being doubled.

Appendix A – Permanent Stormwater Design Checklist

Proposed drainage plan and calculations shall be prepared in accordance with the current City standards for volume, rate, and water quality control as outlined in the City's Stormwater Management Code, Sec. 25-1004.

1) GENERAL

- a) Proposed drainage plan and hydraulic calculations are dated and signed by a licensed professional.
- b) Owner, engineer and architect name, address, phone and email listed.
- c) Plan is to scale. North arrow shown.
- d) Size of the project shown.
- e) Existing impervious and pervious surface areas of the site shown.
- f) Ultimate (when site fully developed) impervious and pervious surface of the site shown.
- g) Development schedule: show phasing and calendar year each phase is planned for construction.
- h) Plan is drawn in 2-foot contours. Existing contours are dashed and proposed are solid. All contours are labeled and legible. Where applicable, extend existing 2-foot contour lines a minimum 100 feet beyond the site boundary or more to accurately depict the drainage patterns.
- i) Existing vegetation: Describe and identify the location of existing vegetation.
- j) Areas not to be disturbed clearly defined.
- k) On-site soil characteristics: Boundaries of different soil types are described. Groundwater elevations are shown.
- l) Existing drainage: Show pre-developed drainage areas, land use and the direction of flow for each area and travel path used to determine the Time of Concentration.
- m) Final drainage: Show post-developed drainage areas, land use and the direction of flow for each area and travel path used to determine the Time of Concentration.
- n) Identify off-site catchment areas draining to the site. Provide 2-foot contours. Show land use and the direction of flow for each area and travel path used to determine the Time of Concentration.
- o) Existing public and private utilities shown.
- p) All receiving waters, including wetlands, identified.
- q) Property limits shown. Streets labeled. Lot and block information shown if platted. Street address shown if unplatted.
- r) A long-term inspection and maintenance plan for all permanent stormwater treatment practices is required to be submitted with the SWPPP.

2) DRAINAGE SWALES, EASEMENTS, BUILDING LOTS

- a) Existing and proposed drainage easements shown and labeled on the plan.
- b) All existing and proposed lot corners shown on the plan.
- c) Control/spot elevations for drainage ways provided.
- d) 100-year flow contained in easement.

- e) Minimum slope of side lot drainage swales is 2%, direction arrow shown.
- f) Minimum back lot drainage swale slope is 1%, direction arrow shown.
- g) Building pads, type of house to be built, garage floor elevation, lowest floor elevation and lowest opening elevation are shown.
- h) Driveway slope, from garage to the gutter is shown.
- i) Lowest opening elevation: min. 2 feet above 100-year HWL, and min. 1 foot above emergency overflow elevation.

3) STORM DRAIN SYSTEM, INLETS, AND OVERFLOWS

- a) Storm drain system design - Rainfall frequency shall be based on Atlas 14 precipitation frequency estimates.
- b) Pipe size, length, grade and material shown.
- c) Top of castings and all inverts of catch basins and manholes shown. Label storm drain structures.
- d) All apron elevations (inlets and outlets) shown.
- e) 400-foot maximum manhole spacing.
- f) Flow direction change ≤ 90 degrees at junctions is desirable.
- g) Apron inlets to storm sewer system shall include trash guards. Trash guards are optional on true culverts.
- h) Discharge direction of flow generally 45 degrees or less to the flow direction of receiving ditch or stream.
- i) Overflow design to be considered for events greater than storm sewer system design event.

4) PERMANENT PONDS

- a) Entire drainage/service area shown (in the report).
- b) Grading plan with pond cross section. All apron elevations (inlet and outlet) shown.
- c) Hydraulic calculations for ponding provided. 100-year high water level shown. and normal water level shown.
- d) Where possible, provide a forebay at the inlet; locate inlet and outlet at opposite ends of pond; and provide length to width ratio 3:1.
- e) Multi-cell design where practical.
- f) Pond side slopes shall not exceed 4 feet horizontal to 1 foot vertical (4:1) above normal water level.
- g) 10:1 bench is provided for first 1 foot of depth below normal water elevation.
- h) The permanent pool must reach a minimum of 3 feet, stay below 10 feet, and be configured to minimize scour and re-suspension of solids. Vegetation and slope stabilization methods are subject to City's approval.
- i) Outlet is designed to prevent short-circuiting and discharge of floating debris.
- j) Permanent pool volume 1,800 cf per acre drained (minimum).
- k) Outlet sized to discharge water quality volume at no more than 5.66 cfs/acre of pond surface area.
- l) Energy dissipation on outlet piping.

- m) Emergency overflow spillway provided to accommodate storms greater than the 100-year event. High point elevation and direction of overflow are marked on plans. Top of berm is 1 foot above emergency overflow spillway.
- n) Emergency overflow spillway is located to protect adjacent property and large fill sections.
- o) Minimum 8-foot width at top of berm.
- p) 12-foot wide access and turn-around area for maintenance vehicles is shown on a slope $\leq 15\%$, cross slope $\leq 6\%$.
- q) Pond access is included in a min. 15-foot wide portion of the pond outlot. If access is in an easement across private property, a 12-foot wide access road shall be provided.
- r) Ponds shall not be located in a wetland unless mitigated for.
- s) As part of the drawing set submittal, provide in table form the following information:
 - i) Elevation of normal water level (NWL).
 - ii) Elevation of 100-year high water level (HWL), with respective discharge rate.
 - iii) Elevation of water quality water level, with respective discharge rate, and pond water surface in sq. ft.
 - iv) Sediment storage volume (for sediment accumulation during construction and 20 years thereafter).

5) **INFILTRATION/FILTRATION**

- a) Refer to the Minnesota Stormwater Manual for specific infiltration/filtration practices.
- b) Infiltration systems shall meet volume control standards as set by the City. Filtration systems shall achieve approximately 80% removal of total suspended solids.
- c) Infiltration or filtration systems should not be excavated to final grade until the contributing drainage area has been constructed and fully stabilized.
- d) During construction of infiltration or filtration systems, rigorous erosion prevention and sediment controls (e.g. diversion berms) should be used to keep sediment and runoff completely away from the infiltration or filtration area. The area must be staked off and marked so that heavy construction equipment will not compact the soil in the proposed infiltration or filtration area.
- e) A pretreatment device such as a vegetated filter strip, small sedimentation basin, or water quality inlet (e.g. grit chamber) is required before the stormwater discharges into the infiltration or filtration system. The Minnesota Stormwater Manual and Minimal Impact Design Standards (MIDS) shall be used when sizing and designing pre-treatment.
- f) Pre-treatment sumps shall have a minimum 3 foot sump depth.
- g) Area to be infiltrated or filtrated shall be delineated on plans.
- h) Calculations or computer model results that demonstrate the design adequacy of the infiltration or filtration system must be included as part of the SWPPP.
- i) The water quality volume shall discharge through the soil surface or filter media in 48 hours or less. Additional flows that cannot be infiltrated or filtered in 48 hours should be routed to bypass the system through a stabilized discharge point. A way to visually verify that the system is as designed must be provided.
- j) Appropriate on-site testing is required and must be consistent with the recommendations in the Minnesota Stormwater Manual. Testing shall be conducted to verify soil types, infiltration capacity characteristics, and to ensure a minimum of 3 feet of separation from the seasonally saturated soils and the bottom of the proposed infiltration system.

- k) Provide at a minimum one soil boring at each infiltration or filtration site.
- l) Adequate maintenance access must be provided (typically 12 ft. wide).
- m) Provide scaled drawing of infiltration or filtration BMP, with typical detail and typical cross section. Outline area which runoff is directed to the BMP. As part of the drawing set submittal, provide in table form the following information:

For Infiltration BMP:

- i) Runoff volume directed to infiltration BMP in cu. ft.
- ii) Storage volume of infiltration BMP in cu. ft.
- iii) Time of infiltration in hours (must be ≤ 48 hours).
- iv) Separation in feet between the ground water table and the bottom of BMP.

For Filtration BMP:

- v) Runoff volume directed to filtration BMP in cu. ft.
- vi) Percent of TSS reduction level.
- vii) Time of filtration in hours (must be ≤ 48 hours).

6) **INFILTRATION PROHIBITIONS AND RESTRICTIONS**

- a) Infiltration is prohibited when the infiltration BMP will receive discharges from, or be constructed in areas:
 - i) Where industrial facilities are not authorized to infiltrate industrial stormwater under an NPDES/SDS Industrial Stormwater Permit issued by the MPCA
 - ii) Where vehicle fueling and maintenance occur
 - iii) With less than three (3) feet of separation distance from the bottom of the infiltration system to the elevation of the seasonally saturated soils or the top of bedrock
 - iv) Where high levels of contaminants in soil or groundwater will be mobilized by the infiltrating stormwater
- b) Infiltration is restricted unless higher engineering review provides sufficient information that the treatment system can function properly and prevent adverse impacts to groundwater when the infiltration system will be constructed in areas:
 - i) With predominately Hydrologic Soil Group D (clay) soils
 - ii) Within 1,000 feet up-gradient, or 100 feet down-gradient of active karst features
 - iii) Within a Drinking Water Supply Management Area (DWSMA) as defined in Minn. R. 4720.5100, subp. 13.
 - iv) Where soil infiltration rates are more than 8.3 inches per hour

7) **ALTERNATIVE VOLUME REDUCTION AND TREATMENT PRACTICES**

- a) Must follow requirements and recommendations in the Minnesota Stormwater Manual.
- b) Full calculations and plans included (narrative in drainage report).

8) **BETTER SITE DESIGN/LOW IMPACT DEVELOPMENT**

- a) Green Infrastructure techniques and practices (including, but not limited to, infiltration, evapotranspiration, reuse/harvesting, conservation design, urban forestry, green roofs), shall be given preference as design options consistent with zoning, subdivision and PUD requirements.
- b) Additional low impact development design features shall be considered and indicated on the plans such as preserving natural areas, site reforestation, stream and shoreline buffers, soil compost amendments, disconnecting of surface impervious cover, and stormwater landscaping.

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APPENDIX B – Alternative Stormwater Treatment Options

The following is based on the flexible treatment options process developed by the Minnesota Pollution Control Agency's Minimal Impact Design Standards (MIDS) Community Assistance Package. The City of Fairmont encourages the use of the MIDS calculator to show volume reduction from alternative practices and pollutant removal documentation. The MIDS calculator is located: <http://stormwater.pca.state.mn.us/index.php/Calculator>

Projects must fully attempt to comply with the appropriate volume reduction requirement as described in the City's Stormwater Management Code Sec. 25-1000. Options considered and presented shall examine the merits of relocating project elements to address varying soil conditions and other constraints across the site. If full compliance is not possible due to any factors listed below, the applicant must document the reason and submit to the City Engineer for review and approval. If site constraints or restrictions limit the full volume reduction requirement, the following flexible treatment options shall be used:

Documentation of the flexible treatment options sequence starting with Alternative #1 shall be provided to the City Engineer; if Alternative #1 cannot be met, then Alternative #2 shall be analyzed. Applicants must document the specific reasons why Alternative #1 cannot be met based on the factors listed below.

Alternative #1:

Applicant attempts to comply with the following conditions:

- a) Achieve at least half of the volume reduction required.
- b) Remove 75% of the annual TP load from the increase in impervious surfaces if the site is new development or from the new and/or fully reconstructed impervious surfaces for a redevelopment site.
- c) Options considered and presented shall examine the merits of relocating project elements to address varying soil conditions and other constraints across the site.

Alternative #2:

Applicant attempts to comply with the following conditions:

- a) Achieve volume reduction to the maximum extent practicable.
- b) Remove 60% of the annual TP load from the increase in impervious surfaces if the site is new development or from the new and/or fully reconstructed impervious surfaces for a redevelopment site.
- c) Options considered and presented shall examine the merits of relocating project elements to address varying soil conditions and other constraints across the site.

Alternative #3:

Off-site mitigation, as approved by the City Engineer, equivalent to the volume reduction requirement for the construction activity, can be used in areas selected in the below order of preference. Off-site mitigation projects shall be completed within 24 months after the start of the original construction activity.

- a) Locations that yield benefits to the same receiving water that receives runoff from the original construction activity.
- b) Locations within the same Department of Natural Resources (DNR) catchment area as the original construction activity.
- c) Locations in the next adjacent DNR catchment area up-stream.
- d) Locations anywhere within the City.

If Alternative #2 cannot be met then Alternative #3 can be considered. Applicants must document the specific reasons why Alternative #2 cannot be met based on the factors listed below.

Volume reduction techniques that will be considered shall include infiltration; reuse & rainwater harvesting; canopy interception & evapotranspiration; and/or additional techniques included in the Minimal Impact Design Standards (MIDS) calculator and the Minnesota Stormwater Manual.

Higher priority shall be given to BMPs that include volume reduction. Secondary preference is to employ filtration techniques, followed by rate control BMPs.

Factors to be considered for each alternative include:

- a) Karst geology
- b) Shallow bedrock
- c) High groundwater
- d) Hotspots or contaminated soils
- e) Drinking Water Source Management Areas or within 200 feet of drinking water well
- f) Zoning, setbacks or other land use requirements
- g) Excessive cost
- h) Poor soils (infiltration rates that are too low or too high, problematic urban soils)